Summary of:
Inventory of marine and estuarine fishes in
Southeast Alaska National Parks during summer, 2001

Annual Report

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INTRODUCTION

This report summarizes results obtained during the first year of a two-year survey of marine and estuarine fishes in three National Parks in Southeast Alaska: Glacier Bay National Park and Preserve, Klondike Goldrush National Historical Park. This survey is part of a nationwide effort to inventory vertebrates and vascular plants in U.S. National Parks. During the planning stage for inventory studies, administrators and biologists from the Southeast Alaska network of parks determined that a marine fish inventory in Glacier Bay was one of their highest priorities.

Goals and Objectives

The following goals were identified during the planning phase of this project. In all cases, the proportion of work that we report as having been completed in 2001 represents progress towards completion of our goals for the entire two-year study.

Data Review and Compilation

Review all historical marine fish data compiled under the Alaska Natural Heritage Program project, identifying outstanding data sources (e.g., recent studies by U.S. Geological Survey or National Marine Fisheries Service, and identify any other species that would be expected to occur.

New Fishery Data Collection

The following primary objectives were identified in conjunction with the National Park Service:

1. Document the presence/absence (>90% of expected species) of near-shore estuarine fish species at Klondike Goldrush and Sitka; secondarily, estimate relative abundances (for the areas/strata sampled).

2. Document and delineate critical marine fish habitats within Glacier Bay proper.

3. Document the presence/absence (>90% of expected species) of marine benthic fish species within Glacier Bay proper; secondarily, estimate relative abundances (for the areas/strata sampled).

4. Document the presence/absence (>90% of expected species) of marine pelagic fish species at depths below 50m within Glacier Bay proper; secondary, estimate relative abundances (for the areas/strata sampled).

5. Document marine fish assemblages (presence/absence >90% of expected species) in Glacier Bay outer waters (along the Icy Strait, Cross Sound, and exposed Gulf of Alaska coasts).

6. Data management: ensuring that Park Service databases NPSpecies, NRBib, ANCS+, Dataset Catalog, and GIS Themes Manager are appropriately populated on an annual basis.

RESULTS

Glacier Bay

We caught 28,840 fish and identified 63 species in Glacier Bay National Park during 2001. Twenty nine of these species (46% of total) were previously undocumented in the Park (Lenz *et al.* 2002). Nine of these previously undocumented species were fairly common (total catch of tens or hundreds of individuals), underscoring the current paucity of information on marine fish populations in the park.

Klondike Goldrush and Sitka Historical Parks

Proposed sampling goals were exceeded for both parks in 2001. Beach seines were conducted at four sites (n = 34 sets) in Klondike Goldrush and two sites (n = 12 sets) in Sitka Park. Data on relative abundance of fishes in these seines are currently being compiled. We identified 25 species in Sitka Park Twenty one of these (84%) were previously undocumented in the park. Ten species were documented in
Klondike Goldrush, and eight of these were previously undocumented. Such high proportions of previously undocumented taxa underscore the extreme paucity of current knowledge about fish populations in these parks.